

Institute for Reference Materials and Measurements

Certified reference materials for vitamins

Certified for proximates and conventional properties

	BCR-121 Wholemeal flour 50 g (mg/kg)	BCR-122 Margarine 200 g (mg/kg)	BCR-431 Brussels sprouts 20 g (mg/kg)	BCR-485 Mixed vegetables 25 g (mg/kg)	BCR-487 Pig's liver 15 g (mg/kg)	ERM-BD600 Whole milk powder 100 g (mg/kg)
A (all- <i>trans</i> -retinol)						3.8 ± 0.6
A (all- <i>trans</i> -retinol and 13- <i>cis</i> -retinol)						4.1 ± 0.8
B1 (thiamin)	4.63 ± 0.39			3.07 ± 0.34	8.6 ± 1.1	4.5 ± 0.6
B2 (riboflavin)					106.8 ± 5.6	16.7 ± 1.4
B6 (total pyridoxine)	4.10 ± 1.02			4.8 ± 0.8	19.3 ± 2.9	
B ₁₂					1.12 ± 0.09	0.32 ± 0.07
C (total ascorbate)		0.125 ± 0.007	4830 ± 240			74 ± 11
D ₃ (cholecalciferol)		241 ± 12				
E (tocopherol)						86 ± 15
Folate (total)	0.50 ± 0.07			3.15 ± 0.28	13.3 ± 1.3	
Niacin			43 ± 3			
Trans-α-carotene				10.5 ± 0.6		
Trans-β-carotene				23.7 ± 1.5		
Total-α-carotene				9.8 ± 0.7		
Total-β-carotene				25.6 ± 1.2		
Lutein				12.5 ± 0.8		
Lutein + zeaxanthin				22.3 ± 1.3		



How to order reference materials

From JRC-IRMM

Tel.: +32 14 571 705 • Fax: +32 14 590 406 • <https://ec.europa.eu/jrc/en/reference-materials> • E-mail: jrc-irrm-rm-sales@ec.europa.eu

From authorised distributors

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